

Ship 10/10/17

Work Order ID 163675

163675

Page 1

Item ID: D412-702-075

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Comfort Crew Shoulder Harness

Start Date: 7/6/2017 Start Qty: 2.00

*2*3
2

Cust Item ID:

Required Date: 7/10/2017 Req'd Qty: 2.00

Customer:

Reference:

Approvals:

Process Plan:

Date: JUL 05 2017

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

IIN-D412-702-3

B

DAS
6
9-89

JUL 10 2017

100

Document Control

0.00

100

DC

DOCUMENT CONTROL

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP D412-702-075 CHG001

3 17-07-10

105

Pick Kit

0.00

105

Packaging

Memo

0.00

Packaging

3 DAS 6 9-89 DAS 27 9-89 JUL 10 2017

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

3 17-07-10

DAS 03 9-89 17-7-10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Work Order ID 163675

Wednesday, July 05, 2017 12:31:18 PM

163675

Page 2

Item ID: D412-702-075

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Comfort Crew Shoulder Harness

Start Date: 7/6/2017 Start Qty: 2.00 ***2***

Cust Item ID:

Required Date: 7/10/2017 Req'd Qty: 2.00 ***2***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC4- 100% Inspect kits for completeness	0.00							
120						3			
QC	Memo	0.00							
Quality Control									17-07-10
130	Identify as per dwg & Stock Location: _____	0.00							
130	Packaging					3			
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-702-075 Location: _____								
	Sold								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

JUL 10 2017

JUL 10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																											
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval																																																								
Description Work Order Deviation				Disposition				Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____																																																							
Root Cause		FAULT CATEGORY																																																													
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____	
Misidentified ☐	Past Due ☐																																																														

Picklist Print

Wednesday, July 05, 2017 12:31:17 PM

Page 1

Work Order ID: 163675

163675

Parent Item: D412-702-075

D412-702-075

Parent Item Name: Comfort Crew Shoulder Harness

Start Date: 7/6/2017

Required Date: 7/10/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A 17.03.13 NEW ISSUE DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN3-10A *AN3-10A* Bolt		Purchased	No			110	Each	104.0000	2	46			
									**				
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				GA				39					
				m136787				39					
				ST349				65					
				m137321				4					
				m137544				61					
AN3-4A *AN3-4A* Bolt		Purchased	No			110	Each	208.0000	4	812			
									**				
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST350				208					
				m137478				208					
AN4-6A *AN4-6A* BOLT		Purchased	No			110	Each	551.0000	2	46			
									**				
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST345				551					
				M137464				551					
D4305-045 *D4305-045* Shoulder Harness Assembly		Manufactured	No			110	Each	4.0000	1	23			
									**				
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST462				4					
				160082				4					

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

Picklist Print

Wednesday, July 05, 2017 12:31:17 PM

Page 2

Work Order ID: 163675

163675

Parent Item: D412-702-075

D412-702-075

Parent Item Name: Comfort Crew Shoulder Harness

Start Date: 7/6/2017

Required Date: 7/10/2017

Start Qty: 2.00

Required Qty: 2.00

MS21042L3

Purchased

No

110

Each

1,381.000

6

12-18

MS21042L3

Nut

EB

**

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

79

m135945

79

GA

394

m134360

102

M136665

292

ST303

908

m137680

408

m137886

500

18

JUL 10 2017

MS21042L4

Purchased

No

110

Each

1,899.000

2

4-8

MS21042L4

Nut

EB

**

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

10

m133363

10

GA

51

m135058

51

OVER007

1000

m137680

1000

ST303

838

m137402

400

m137544

438

16

JUL 10 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : ☐							

Picklist Print

Wednesday, July 05, 2017 12:31:17 PM

Page 3

Work Order ID: 163675

163675

Parent Item: D412-702-075

D412-702-075

Parent Item Name: Comfort Crew Shoulder Harness

Start Date: 7/6/2017

Required Date: 7/10/2017

Start Qty: 2.00

Required Qty: 2.00

NAS1149D0332J

Purchased

No

110

Each

736.0000

10

20-30

NAS1149D0332.I

Washer

EB

**

DAS
27
9-89

Location

Loc Qty

Loc Code

FP

181

m136015

8

m137075

173

GA

272

m136643

272

ST264

283

m136015

0

m137736

283

DAS
6
9-89

NAS1149D0363J

Purchased

No

110

Each

566.0000

6

12-18

NAS1149D0363.I

Washer

EB

**

DAS
6
9-89

JUL 10 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

43

m134055

13

m137164

30

ST263

523

m137587

523

18
8-12

NAS1149D0432J

Purchased

No

110

Each

1,031.000

4

NAS1149D0432.I

WASHER

EB

**

DAS
6
9-89

JUL 10 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

24

m131026

24

ST264

1007

m134676

30

m137459

977

12

Wednesday, July 05, 2017 12:31:17 PM

Shop Packet Print

Page 3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

Picklist Print

Wednesday, July 05, 2017 12:31:18 PM

Page 4

Work Order ID: 163675

163675

Parent Item: D412-702-075

D412-702-075

Parent Item Name: Comfort Crew Shoulder Harness

Start Date: 7/6/2017

Required Date: 7/10/2017

Start Qty: 2.00

Required Qty: 2.00

NAS1149D0463J

Purchased

No

110

Each

3,313.000

4

8-12

NAS1149D0463.I

Washer

EB

**

Location

Loc Qty

Loc Code

GA

640

M135056

40

M137699

600

ST260a

1400

M137699

1400

ST263

1273

M137371

1273

JUL 10 2017
DAS 27 9-89
6 9-89
12

Wednesday, July 05, 2017 12:31:18 PM

Shop Packet Print

Page 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Work Order ID 163675

163675

Wednesday, July 05, 2017 12:31:18 PM

Item ID: D412-702-075 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Comfort Crew Shoulder Harness

Start Date: 7/6/2017 Start Qty: 2.00 Cust Item ID:
 Required Date: 7/10/2017 Req'd Qty: 2.00 Customer:

Reference:

Approvals: Process Plan:  Date: JUL 05 2017 Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr	JUL 10 2017							
IIN-D412-702-3	B								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP D412-702-075 CHG001								

DAS
5
9-89

③

JUL 10 2017

105	Pick Kit	0.00							
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105									
Packaging	Memo	0.00							
Packaging									

110	Pick Kit	0.00							
-----	----------	------	--	--	--	--	--	--	--

110									
Packaging	Memo	0.00							
Packaging									



Transport
Canada

Transports
Canada

Department of Transport

Supplemental Type Certificate

This approval is issued to:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ontario
Canada K6A 1K7

Number: SH04-7

Issue No.: 3

Approval Date: February 06, 2004

Issue Date: March 09, 2006

Responsible Office:

Ontario

Aircraft/Engine Type or Model:

BELL 205A-1, 205B, 212, 214B, 214B-1, 412, 412 CF, 412 EP

Canadian Type Certificate or Equivalent:

BELL 205B H-104
BELL 214B, 214B-1 H-80
BELL 212, 412, 412 CF, 412 EP H-86
BELL 205A-1 H1SW

Description of Type Design Change:

Shoulder Harness Kits

**Installation/Operating Data,
Required Equipment and Limitations:**

Manufacture of the Shoulder Harness Kits must be in accordance with Dart Aerospace Ltd. MDL-D412-702, Revision B, approved Jan 17 2006, or later approved revisions.

Installation of the Shoulder Harness Kits must be in accordance with Dart Aerospace Ltd. IIN-D412-702, Revision C, approved Mar 07 2006, or later approved revision.

Maintenance of the Shoulder Harness Kits must be in accordance with Dart Aerospace Ltd. ICA-D412-702, Revision 2, Transport Canada accepted Mar 09 2006, or later Transport Canada accepted revisions.

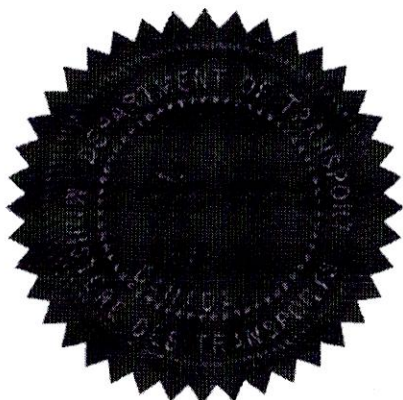
Operation with the Shoulder Harness Kits must be in accordance with Dart Aerospace Ltd. FMS-D412-702, Revision C, Transport Canada approved Mar 09 2006, or later Transport Canada approved revisions.

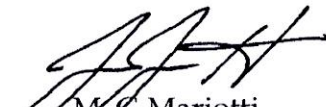
Basis of Certification:

The basis of certification for this modification was FAR 29, up to and including Amendment 29-47, except for 29.561, 29.562, and 29.785 at Amendment 29-11.

- End -

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.




M. G. Mariotti
For Minister of Transport

Canada

REFERENCE ONLY**4.0 WEIGHT AND BALANCE**

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D412-702-071 <i>Pilot/Co-pilot Shoulder Harness Kit</i>	-2.6 lb -1.2 kg	± 22.0 in ± 0.56 m	± 57.2 in lb ± 0.67 m kg	47.0 in 1.19 m	-122.2 in lb -1.43 m kg
D412-702-073 <i>Pilot/Co-pilot Shoulder Harness Kit</i>	-2.6 lb -1.2 kg	± 22.0 in ± 0.56 m	± 57.2 in lb ± 0.67 m kg	47.0 in 1.19 m	-122.2 in lb -1.43 m kg
D412-702-075 <i>Pilot/Co-pilot Shoulder Harness Kit</i>	-2.6 lb -1.2 kg	± 22.0 in ± 0.56 m	± 57.2 in lb ± 0.67 m kg	47.0 in 1.19 m	-122.2 in lb -1.43 m kg

5.0 PARTS LISTS

QTY -071	QTY -073	QTY -075	Part Number	Description
X			D412-702-071	Dart Pilot/Co-Pilot Shoulder Harness Kit
	X		D412-702-073	Dart Pilot/Co-Pilot Shoulder Harness Kit
		X	D412-702-075	Dart Pilot/Co-Pilot Shoulder Harness Kit
1			D4305-041	SHOULDER HARNESS
	1		D4305-043	SHOULDER HARNESS
		1	D4305-045	SHOULDER HARNESS
4	4	4	AN3-4A	BOLT
2	2	2	AN4-6A	BOLT
2	2	2	AN3-10A	BOLT
6	6	6	MS21042L3	NUT
2	2	2	MS21042L4	NUT
10	10	10	NAS1149D0332J	WASHER
6	6	6	NAS1149D0363J	WASHER
4	4	4	NAS1149D0432J	WASHER
4	4	4	NAS1149D0463J	WASHER